TECHNICAL BULLETIN

[Issue No.] GOT-A-0064-C **[Page]** 1/39
[Title] List of Valid Devices Applicable for GOT2000 Series
[Date of Issue] Ver. C: February 2015 (First Edition: September 2013)
[Relevant Models] GOT2000 Series

Thank you for your continued support of Mitsubishi Graphic Operation Terminal (GOT).
The peripheral devices listed in this bulletin have been concluded by Mitsubishi to be applicable for the GOT2000 series.
For how to use each product, refer to the respective product's manual.
Regarding the production status of each product, confirm with the manufacturer.

Recommended Product
A product that complies with our standard.
Make sure that you use the product compliant with the specification (standard).
Compatible Product
A product that satisfies the requirements to be interfaced with Mitsubishi products.
(Note that satisfaction of Mitsubishi specifications is not guaranteed.)
Therefore, make sure to comply with the specifications for that product when using it together with Mitsubishi products.
Even when Compatible Products are used, some products may not be compatible with the GOT 2000 series. Because the specifications of the products are changed according to the date of manufacture. When using Compatible Products, examine the products fully and decide whether to use or not.
Discontinued Product
A product that has been introduced as Recommended Product or Compatible Product in the bulletin before. We think that you will have difficulty to obtain the product because of production discontinuation and others.
Incompatible Product
A product that does not satisfy the requirements to be interfaced with Mitsubishi products.
Use Compatible Product.

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE : TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS : 1-14, YADA-MINAMI 5-CHOME, HIGASHI-KU, NAGOYA, JAPAN

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1. Memory Card (CF card and SD card)

Supported memory card	GOT	
	GOT2000	GT27-MMR-Z
CF card (MITSUBISHI GT05-MEM-□C)	×	○
SD card (MITSUBISHI L1MEM-□GBSD)	○	×

For the applicable non-Mitsubishi memory cards (CF cards and SD cards), refer to the following Technical Bulletins.

➟ Non-Mitsubishi CF card: No. GOT-A-0025 "Operation Check Results of Third Party CF Cards on GOT1000 Series Units"
Non-Mitsubishi SD card: No. GOT-A-0065 "Operation Check Results of Non-Mitsubishi SD Cards on GOT2000 Series Units"

2. USB Memory

Item	Specification
USB memory	USB hub compliant with USB2.0 (including forward-compatible with USB3.0 and others) *1*2*3

*1: For the GT27, the USB memory has a capacity of 32GB.
*2: A USB memory with a particular function and others may not be available depending on the USB memory type.
Particular function examples:
- A composite device (including a hub function and a card reader function)
- A USB memory with an authentication function, an encryption function, or a security function including an anti-virus function and others
- A USB memory whose functions are added by dedicated driver software.

*3: USB memory that has been formatted in FAT or FAT32 is available.
- FAT: Up to 2GB
- FAT32: Up to 32GB

3. Barcode Reader

3.1 Compatible Products

3.1.1 RS-232 connection

◎: Recommended product, ○: Operation validated, ×: Operation not checked

Manufacturer	Model	Operation validation		Refer to
		GOT2000	GT SoftGOT2000	
AIMEX Corporation	BR-530RS-B1	○	○	3.2.1
	BW-880RS-B1 *1	○	○	
IDEC AUTO-ID SOLUTIONS Corporation	DS2200-1100	○	○	3.2.1
	DS2100-1114	○	○	
	GRYPHON D100	○	○	
	GRYPHON D130	○	○	
	DS2400N-□□□□	○	○	3.2.6
	DS4800-1□00	○	○	
	QD2130-□□	○	○	3.2.4
	QD4130-□□	○	○	
	GBT4130-BK-BT	○	○	3.2.5
	MG1100i-1D	○	○	3.2.4
	PD7130-YB-PTR	○	○	
NEC Platforms, Ltd.	BCH5542-STA	○	○	3.2.1
	BCR5342H-STZ	○	○	
OMRON Corporation	V520-RH21-6	○	○	3.2.2
OPTOELECTRONICS CO.,LTD.	OPT-5125-RS232C(H)	○	○	3.2.1
	OPL-6735-RS232C(X04)	○	○	
	NFT-7175-RS-1	○	○	
	OPL-6845R-RS232	○	○	3.2.4
KEYENCE CORPORATION	BL-210R	○	○	3.2.1
	BL-210RK *2	◎	×	
	BL-601	○	○	
	BL-N70R	○	○	
	SR-510	○	○	
DENSO WAVE Incorporated	GT10B-SB	○	○	3.2.7
MARS TOHKEN SOLUTION CO.,LTD	TLMS-3500RV	○	○	3.2.1
	THLS-6712	○	○	
	THLS-6800	○	○	
Nippon Systems Development Co.,Ltd.	AC-812-000-D1	○	○	3.2.3
	PDC-812-400-00+PDC-812-300-D1	◎	◎	
Motorola Solutions, Inc.	LS2208	○	○	3.2.2
	LI4278	○	○	3.2.1
Honeywell International Inc.	3800G-04E	○	○	3.2.4

*1: For the GOT2000 Series, turn on the barcode reader after any of the following conditions.
- More than two seconds have elapsed since the GOT is turned on.
- The logo [GOT2000] is displayed on the screen after the GOT is turned on.

*2: GT27 model and GT25 model are available only. (Configure the settings in the utility of the GOT to supply 5VDC.)

3.1.2 RS-422/485 connection

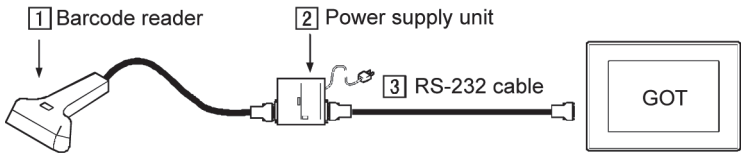
◎: Recommended product, ○: Operation validated, ×: Operation not checked

Manufacturer	Model	Operation validation		Refer to
		GOT2000	GT SoftGOT2000	
IDEC AUTO-ID SOLUTIONS Corporation	DS2100N-1214	◎	×	3.2.8

3.2 System equipment of barcode readers

The following shows the equipment to configure with different types of barcode readers.

3.2.1 System equipment (1)

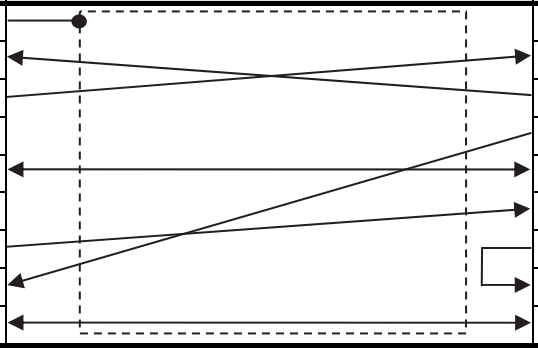


Manufacturer	1 Barcode reader	2 Power supply unit	3 RS-232 cable
AIMEX Corporation	BR-530RS-B1	Included with a barcode reader (An adapter (BB-60) must be purchased separately.)	Included with a barcode reader
	BW-880RS-B1	Included with a barcode reader	Included with a barcode reader
IDEC AUTO-ID SOLUTIONS Corporation	DS2200-1100	DSPW-2102	GT01-C30R2-25P *1
	DS2100-1114	DSPW-2102	GT01-C30R2-25P *1
	GRYPHON D100	PG5 MAIN POWER BLOCK	Included with a barcode reader
	GRYPHON D130	UL310-0515	Sold separately: CAB-327/CAB-350/CAB-362
NEC Platforms, Ltd.	BCH5542-STA	BCV5070 or CA1071	GT01-C30R2-9S *1
	BCR5342H-STZ	BCV5070 or BCA1071	GT01-C30R2-9S *1
OPTOELECTRONICS CO.,LTD.	OPT-5125-RS232C(H)	Not necessary	Included with a barcode reader *2
	OPL-6735-RS232C(X04)	DC-5300T	Included with a barcode reader
	NFT-7175-RS-1	GT27, GT25: Not necessary GT21: DC-5300T	GT27,GT25: Included with a barcode reader GT21: Power supply jack with cable is necessary
KEYENCE CORPORATION	BL-210R	Included with a barcode reader	Included with a barcode reader
	BL-210RK	Not necessary	Produced by the user Refer to 1) below. (5VDC is required.)
	BL-601	BL-U1	Produced by the user Refer to 2) below. *3
		BL-U2	Produced by the user Refer to 3) below. *4
	BL-N70R	R3W005-025J	Included with a barcode reader
	SR-510	BL-U2	GT01-C30R2-9S
MARS TOHKEN SOLUTION CO.,LTD	TLMS-3500RV	Not necessary *5	GT01-C30R2-25P *1
	THLS-6712	AD-6712	Included with a barcode reader
	THLS-6800	An adapter must be purchased separately.	Included with a barcode reader
Motorola Solutions, Inc.	LI4278	Cradle: STB4278-C0001WR Power supply: 50-14000-010	CBA-R01-S07PAR

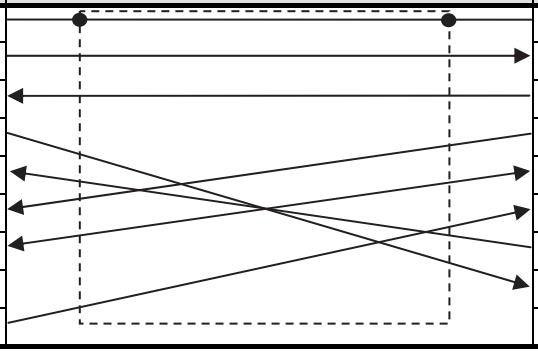
*1: This is a Mitsubishi Electric product. Please contact your local Mitsubishi Electric or representative for purchasing the cable.
*2: When purchasing OPT-5125-RS232C(H), select one with the same connector shape as OPL-6735-RS232C(X04).
*3: The OP-22149(1.5m) and the OP-25057 (conversion connector) manufactured by KEYENCE CORPORATION are

available.
*4: The OP-27937(2m) manufactured by KEYENCE CORPORATION is available.
*5: It is necessary to supply 24VDC to the barcode reader separately. For details, please refer to the manual of the barcode reader to be used.

1) Cable connection diagram for a barcode reader manufactured by KEYENCE CORPORATION (BL-210RK)
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
SG	1		1	CD
RD(RXD)	2		2	RD(RXD)
SD(TXD)	3		3	SD(TXD)
ER(DTR)	4		4	ER(DTR)
SG	5		5	SG
DR(DSR)	6		6	DR(DSR)
RS(RTS)	7		7	RS(RTS)
CS(CTS)	8		8	CS(CTS)
5V	9		9	5V

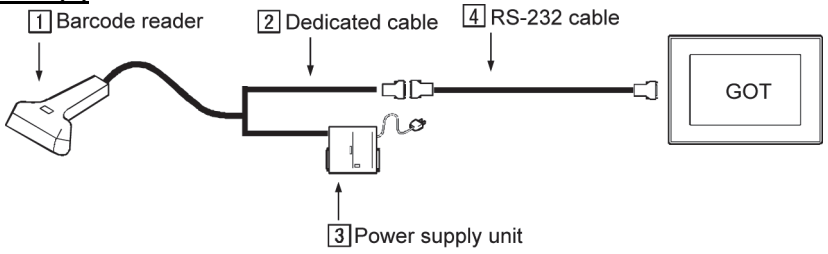
2) RS-232 cable connection diagram for a barcode reader manufactured by KEYENCE CORPORATION (BL-601, BL-U1)
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
FG	1			Connector case
SD	2		2	RD(RXD)
RD	3		3	SD(TXD)
RS	4		4	ER(DTR)
CS	5		5	SG
DR	6		6	DR(DSR)
SG	7		7	RS(RTS)
	8		8	CS(CTS)
ER	20		9	—

3) Cable connection diagram for a barcode reader manufactured by KEYENCE CORPORATION (BL-601, BL-U2)
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
Connector case				Connector case
RD	2		2	RD(RXD)
SD	3		3	SD(TXD)
ER	4		4	ER(DTR)
SG	5		5	SG
DR	6		6	DR(DSR)
RS	7		7	RS(RTS)
CS	8		8	CS(CTS)
—	9		9	—

3.2.2 System equipment (2)



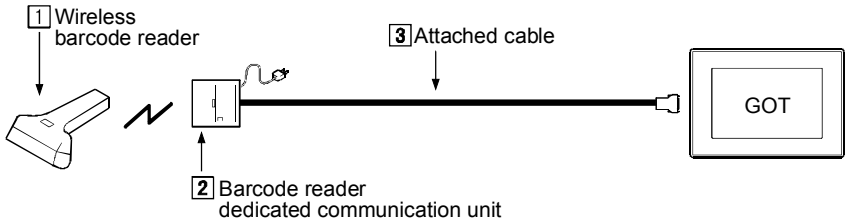
Manufacturer	1 Barcode reader	2 Dedicated cable	3 Power supply unit	4 RS-232 cable
OMRON Corporation	V520-RH21-6 (With dedicated cable)	V509-W012	S8VS-03005(A 100VAC plug cable must be purchased separately.)	Produced by the user Refer to 1) below.
Motorola Solutions, Inc.	LS2208	CBA-R01-S07PAR	symbol 50-14000-101R	Not necessary

1) Cable connection diagram for a barcode reader manufactured by OMRON Corporation
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader			Cable connection and signal direction	GOT	
Signal direction	Signal name	Pin No.		Pin No.	Signal name
Internal connection	FG	1		1	CD
	SD(TXD) *1	2		2	RD(RXD)
	RD(RXD) *1	3		3	SD(TXD)
	RS(RTS)	4		4	ER(DTR)
	CS(CTS)	5		5	SG
	—	6		6	DR(DSR)
	—	7		7	RS(RTS)
	—	8		8	CS(CTS)
	SG	9		9	—

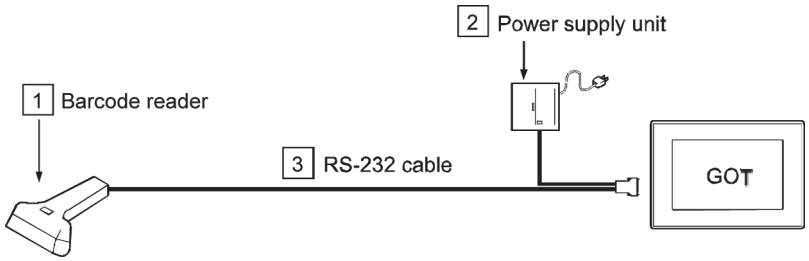
*1: A dedicated cable, V509-W012 (cross cable), is used between the barcode reader and the cables mentioned above. Even if the signal name for cable connection is SD-SD or RD-RD, the communication can be performed with no problem.

3.2.3 System equipment (3)



Manufacturer	1 Wireless barcode reader	2 Barcode reader dedicated communication unit	3 Attached cable
Nippon Systems Development Co.,Ltd.	AC-812-000-D1 PDC-812-400-00+ PDC-812-300-D1	Included with a barcode reader	Included with a barcode reader

3.2.4 System equipment (4)

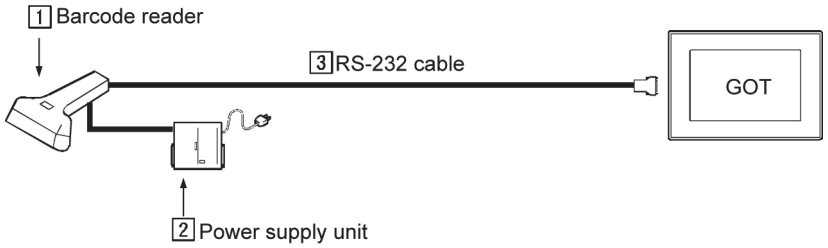


Manufacturer	1 Barcode reader	2 Power supply unit	3 RS-232 cable
IDEC AUTO-ID SOLUTIONS Corporation	QD2130-□□	UL310-0515	CAB-350 *1
	QD4130-□□		
	MG1100i-1D	HK-CP13-A05	8-0736-80 *1
	PD7130-YB-PTR	SET8-0935	CAB-433 *1
OPTOELECTRONICS CO.,LTD.	OPL-6845R-RS232	Included with a barcode reader	Included with a barcode reader *1
Honeywell International Inc	3800G-04E	An adapter must be purchased separately.	Included with a barcode reader

*1: To connect the barcode reader to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)

<Connection example>
[Barcode reader (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]

3.2.5 System equipment (5)

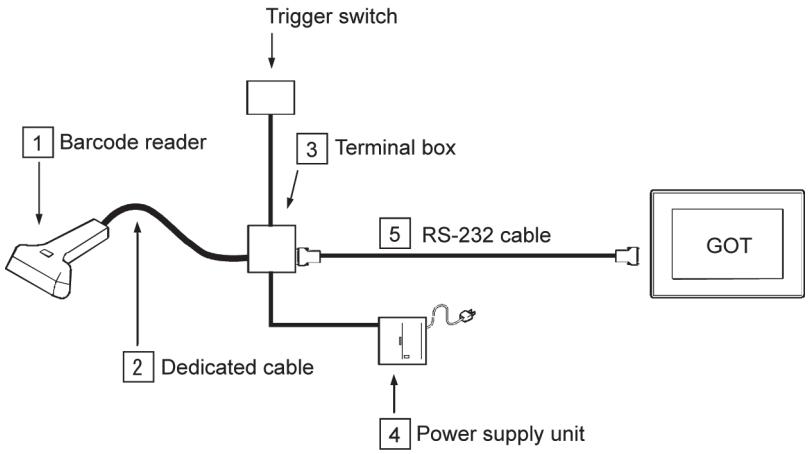


Manufacturer	1 Barcode reader	2 Power supply unit	3 RS-232 cable
IDEC AUTO-ID SOLUTIONS Corporation	GBT4130-BK-BT	PSAA18U-120	CAB-350 *1

*1: To connect the barcode reader to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)

<Connection example>
[Barcode reader (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]

3.2.6 System equipment (6)

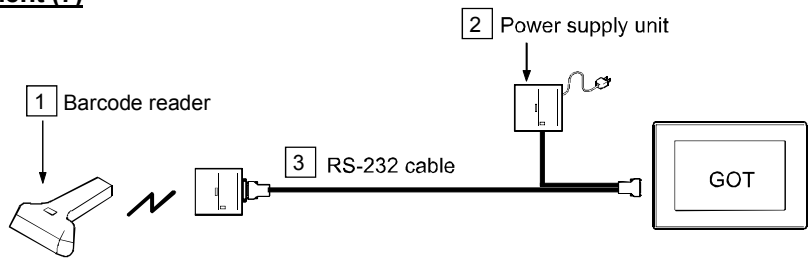


Manufacturer	1 Barcode reader	2 Dedicated cable	3 Terminal box	4 Power supply unit	5 RS-232 cable
IDEC AUTO-ID SOLUTIONS Corporation	DS2400N-□□□□ DS4800-1□00	Included with a barcode reader	CBX100	PS5R-B24	Produced by the user Refer to 1) below.

1) RS-232 cable connection diagram for a barcode reader manufactured by IDEC AUTO-ID SOLUTIONS Corporation.
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
SGND	—		1	CD
TX	—		2	RD(RXD)
RTS	—		3	SD(TXD)
RX	—		4	ER(DTR)
CTS	—		5	SG
—	—		6	DR(DSR)
—	—		7	RS(RTS)
—	—		8	CS(CTS)
—	—		9	NC

3.2.7 System equipment (7)

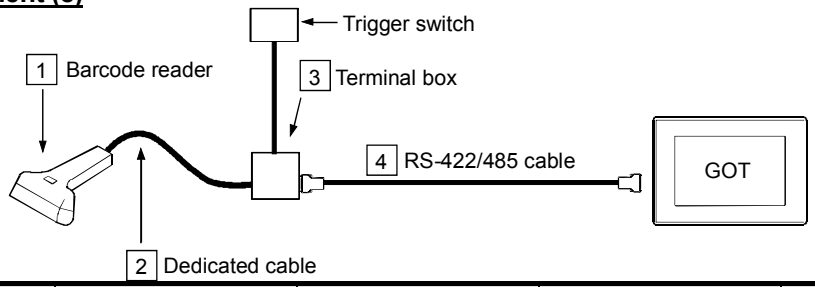


Manufacturer	1 Barcode reader	2 Power supply unit	3 RS-232 cable
IDEC DATALOGIC Corporation	QD2130-☐☐	UL310-0515	CAB-350 *1
	QD4130-☐☐		
	MG1100i-1D	HK-CP13-A05	8-0736-80 *1
OPTOELECTRONICS CO.,LTD.	OPL-6845R-RS232	Included with a barcode reader	Included with a barcode reader *1
Honeywell International Inc	3800G-04E	An adapter must be purchased separately.	Included with a barcode reader

*1: To connect the barcode reader to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)

<Connection example>
[Barcode reader (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]

3.2.8 System equipment (8)



Manufacturer	1 Barcode reader	2 Dedicated cable	3 Terminal box	4 RS-422/485 cable
IDEC AUTO-ID SOLUTIONS Corporation	DS2100N-1214	Included with a barcode reader	CBX100	Produced by the user Refer to 1) below.

1) RS-422/485 cable connection diagram for a barcode reader manufactured by IDEC AUTO-ID SOLUTIONS Corporation.

a) For connection using the RS-422/485 interface of the GOT or GT15-RS4-9S
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	SDA
TX(+)	2		2	RDA
RX(+)	3		3	RSA
TX(-)	4		4	CSA
RX(-)	5		5	SG
—	—		6	SDB
SGND	7		7	RDB
—	—		8	RSB
—	—		9	CSB

b) For connection using GT15-RS4-TE
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	SDA1
TX(+)	2		2	SDB1
RX(+)	3		3	RDA1
TX(-)	4		4	RDB1
RX(-)	5		5	SDA2
—	—		6	SDB2
SGND	7		7	RDA2
—	—		8	RDB2
—	—		9	SG
—	—		10	FG

3.3 Compatible barcode types

The following barcode reader communication settings are supported by the GOT.

○: Can be read in the GOT, △: Partly restricted, ×: Unreadable in GOT

Manufacturer	Barcode reader	Barcode type								
		WPC (JAN, EAN, UPC)	CODE-39	CODE-93	CODE-128	NW-7 (CODABAR)	2of5 (industrial)	ITF (2of5Interleaved)	MSI/Plessy	IATA 2of5
AIMEX Corporation	BR-530RS-B1	○	○	○	○	○	×	○	×	×
	BW-880RS-B1	○	○	○	○	○	○	○	○	×
IDEC AUTO-ID SOLUTIONS Corporation	DS2200-1100	○	○	○	○	○	×	○	×	×
	DS2100-1114	○	○	○	○	○	×	○	×	×
	GRYPHON D100	○	○	○	○	○	○	○	○	×
	GRYPHON D130	○	○	○	○	○	○	○	×	×
	DS2400N-□□□□	○	○	○	○	○	○	○	○	○
	DS4800-1□00	○	○	○	○	○	○	○	○	○
	QD2130-□□	○	○	○	○	○	○	○	○	○
	DQ4130-□□	○	○	○	○	○	○	○	○	○
	GBT4130-BK-BT	○	○	○	○	○	○	○	○	○
	MG1100i-1D	○	○	○	○	○	○	○	○	○
	PD7130-YB-PTR	○	○	○	○	○	○	○	○	○
	DS2100N-1214	○	○	○	○	○	×	○	×	×
NEC Platforms, Ltd.	BCH5542-STA	○	○	○	○	○	○	○	×	×
	BCR5342H-STZ	○	○	○	○	○	○	○	×	×
OMRON Corporation	V520-RH21-6	○	○	○	○	○	×	○	×	×
OPTOELECTRONICS CO.,LTD.	OPT-5125-RS232C(H)	○	○	○	○	○	○	○	○	×
	OPL-6735-RS232C(X04)	○	○	○	○	○	○	○	○	×
	NFT-7175-RS-1	○	○	○	○	○	○	×	○	×
	OPL-6845R-RS232	○	○	○	○	○	○	×	×	○
KEYENCE CORPORATION	BL-210R	○	○	○	○	○	○	○	×	×
	BL-210RK	○	○	○	○	○	×	×	×	×
	BL-601	○	○	○	○	○	○	○	×	×
	BL-N70R	○	○	○	○	○	×	○	○	×
	SR-510	○	○	○	○	○	○	○	×	×
	HR-50R	○	○	○	○	○	○	○	×	×
DENSO WAVE INCORPORATED	GT10B-SB	○	○	○	○	○	○	○	○	×
MARS TOHKEN SOLUTION CO.LTD.	TLMS-3500RV	△ *1	○	×	○	○	×	○	×	×
	THLS-6712	○	○	○	○	○	×	○	×	×
	THLS-6800	○	○	○	○	○	×	○	×	×
Nippon Systems Development Co.,Ltd.	AC-812-000-D1	○	○	×	○	○	○	○	×	×
Motorola Solutions, Inc.	LS2208	○	○	○	○	○	×	○	×	×
	LI4278	○	○	○	○	○	○	○	○	○
Honeywell International Inc.	3800G-04E	○	○	○	○	○	×	○	×	○

*1: Only JAN is supported.

3.4 How to read data by a barcode reader

Please refer to the followings for the data transfer format (header/terminator settings and others) that can be used in the GOT or the setting method to read data by a barcode reader.

(a) Data transfer format (header/terminator settings and others) that can be used in the GOT.

(b) Setting to connect a barcode reader to the GOT. ([Peripheral Setting] on GT Designer3(GOT2000))

(c) Setting to write the data, read by a barcode reader, to the PLC CPU. ([Detail Setting] in the [Bar Code] dialog box on GT Designer3(GOT2000))
Refer to the following.

➟ GT Designer3 (GOT2000) Screen Design Manual (SH-081220ENG)

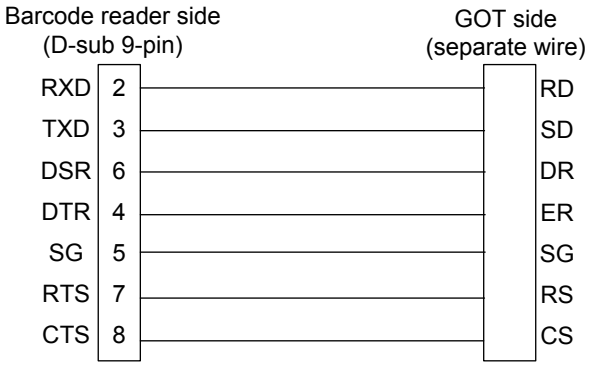
(d) Setting procedure from connecting a barcode reader to the GOT until reading a barcode.
Refer to the following.

➟ GOT2000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)

3.5 When using the GT21 model

To connect the barcode reader with the built-in RS-232 port (on the back side) of GT2103-PMBDS or GT2103-PMBDS2, use the cable GT10-C02H-6PT9P.
To use GT2104-R, refer to the following and fabricate a cable for connecting the GOT.

■User cable



4. 2D Code Reader

4.1 Compatible Products

◎: Recommended product, ○: Operation validated, ×: Operation not checked

Manufacturer	Model	Operation validation		Reference
		GOT2000	GT SoftGOT2000	
AIMEX Corporation	IT4600SR-RS	○	○	4.2.1
IDEC AUTO-ID SOLUTIONS Corporation	MATRIX210-21□-□□□	○	○	4.2.4
	MATRIX300-□□□-□□□	○	○	
	MATRIX410-□□□-0□0	○	○	
	GD4430-□□	○	○	4.2.3
	GD4430-□□-HD	○	○	
	GBT4430-□□	○	○	
	MG1100i-2D	○	○	
	M3200i Series	○	○	
OMRON Corporation	V400-F250	○	○	4.2.1
OPTOELECTRONICS CO.,LTD.	OPD-7435	○	○	4.2.1
	NFD1267 *1	○	×	
	OPI-3601-V	○	○	
KEYENCE CORPORATION	TL-30	○	○	4.2.1
	TL-40	○	○	
	SR-510	○	○	
	HR-100	○	○	
DENSO WAVE INCORPORATED	GT10Q-SB	○	○	4.2.2
	GT10Q-SR	◎	◎	4.2.1
	GT11Q-SR	○	○	
	QB20K *1	○	×	
	QD20	○	○	
	AT10Q-SM	○	○	4.2.3
MARS TOHKEN SOLUTION CO.LTD.	THIR-3000N	◎	◎	4.2.1
	THIR-6000	○	○	
	TFIR-31	○	○	
	THIR-6200DDM	○	○	
	THIR-6780R	○	○	
Cognex K.K.	DataMan 100	○	○	4.2.1
	DataMan 7500/7500LR	○	○	
	DataMan 7550/7550LR	○	○	
	DataMan 750/750S	○	○	4.2.3
	DataMan 200 *2	○	○	
	DataMan 8100/8500	◎	○	
Motorola Solutions, Inc.	DS6608-RS-DOS/V	◎	◎	4.2.1
Honeywell International Inc.	1900GSR-2	○	○	4.2.3

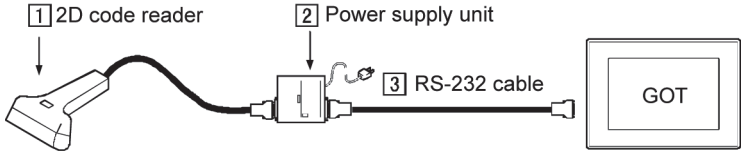
*1: GT27 model and GT25 model are available only. (5VDC is required.)
*2: Configure the communication settings of the DataMan 200 and the GOT as shown below.

Setting item	Set value
Baud rate	115200 bps
Data length	8 bits or 7 bits
Stop bit	None, Even number or odd number
Parity	1 bit or 2 bits

4.2 System equipment of 2D code reader

The following shows the equipment to configure with different types of 2D code readers.

4.2.1 System equipment (1)

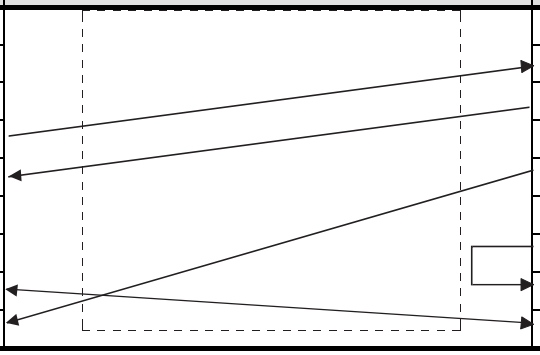


Manufacturer	1 2D code reader	2 Power supply unit	3 RS-232 cable
AIMEX Corporation	IT4600SR-RS	Included with a 2D code reader	Included with a 2D code reader
OMRON Corporation	V400-F250	Not necessary *1*2	Purchased by the user (V400-W24) Including a 24VDC power cable
OPTOELECTRONICS CO.,LTD.	OPD-7435	Included with a 2D code reader	Included with a 2D code reader
	NFD1267	Not necessary *3	Produced by the user Refer to 1) below. (5VDC is required.)
	OPI-3601-V	Included with a 2D code reader	Included with a 2D code reader
KEYENCE CORPORATION	TL-30	TL-U1	For GT27and GT25, refer to 2) below. GT21 when used, use the cable to the 2D code reader is shipped
	TL-40	TL-U1	Included with a 2D code reader
	SR-510	BL-U2	GT01-C30R2-9S *4
	HR-100	OP-87530	HR-1C3RC
DENSO WAVE INCORPORATED	GT10Q-SR	AD1005/3600	GT27, GT25, GT21: ・CBG1-RS2000/9 ・CBG1-RS5000/9-1 ・GT10Q RS232C/2m Curl SoftGOT2000: *5
	GT11Q-SR	AD1005/3600	CBG11-RS2000/9
	QB20/20-HD	2000639	496800-0040
	QB20K	Included with a 2D code reader	Included with a 2D code reader
	QD20	Not necessary *1*2	Produced by the user Refer to 3) below.
MARS TOHKEN SOLUTION CO.LTD.	THIR-3000N	S-8440	Included with a 2D code reader *5 *6
	TFIR-3102	Not necessary *1	Produced by the user Refer to 4) below.
	THIR-6000	Included with a 2D code reader	Included with a 2D code reader
	TFIR-31	Included with a 2D code reader	Included with a 2D code reader
	THIR-6200DDM	Included with a 2D code reader	Included with a 2D code reader
	THIR-6780R	Included with a 2D code reader	Included with a 2D code reader
Cognex K.K.	DataMan 100	DM100-RWR-000	DM100-RS232-000
	DataMan 7500	Included with a 2D code reader	DM42206139-04
	DataMan 7550	Included with a 2D code reader	DM42203758-03S
Motorola Solutions, Inc.	DS6608-RS-DOS/V	Included with a 2D code reader	Included with a 2D code reader *5

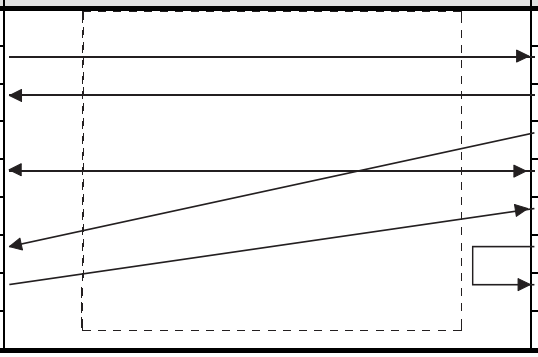
*1: It is necessary to supply 24VDC to the 2D code reader separately. For details, please refer to the manual of the 2D code reader to be used.
*2: For adjusting settings of the 2D code reader by using the monitor, please refer to the manual of the 2D code reader to be used.
*3: It is necessary to supply 5VDC to the 2D code reader separately. For details, please refer to the manual of the 2D code reader to be used.

*4: This is a Mitsubishi Electric product. Please contact your local Mitsubishi Electric or representative for purchasing the cable.
*5: To connect the 2D code reader to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)
<Connection example>
[2D code reader (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]
*6: With the USB/RS-232 conversion cables (DIFC-U2 and DAC01R2VD), configure the 2D code reader setting so that the RS/CS control is not performed.

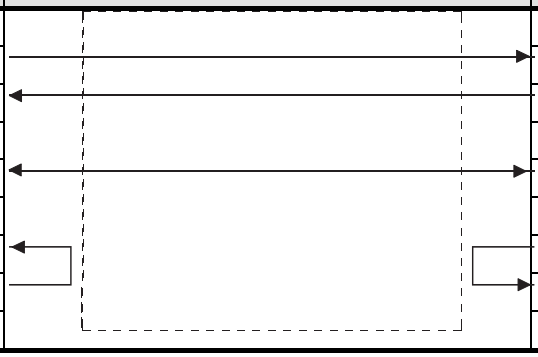
1) RS-232 cable connection diagram for a 2D code reader manufactured by OPTOELECTRONICS CO., LTD.
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the 2D code reader manufacturer.

2D code reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
Trigger	Green		1	CD
OK-	Yellow		2	RD(RXD)
NG	Blue		3	SD(TXD)
SD	Purple		4	DTR(ER)
RD	Orange		5	SG
RS	Brown		6	DSR(DR)
CS	Gray		7	RS(RTS)
+5V	Red		8	CS(CTS)
GND	White		9	5V

2) RS-232 cable connection diagram for a 2D code reader manufactured by KEYENCE CORPORATION
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the 2D code reader manufacturer.

2D code reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
N.C	1		1	CD
SD(TXD)	2		2	RD(RXD)
RD(RXD)	3		3	SD(TXD)
N.C	4		4	DTR(ER)
SG	5		5	SG
N.C	6		6	DSR(DR)
CS(CTS)	7		7	RS(RTS)
RS(RTS)	8		8	CS(CTS)
N.C	9		9	—

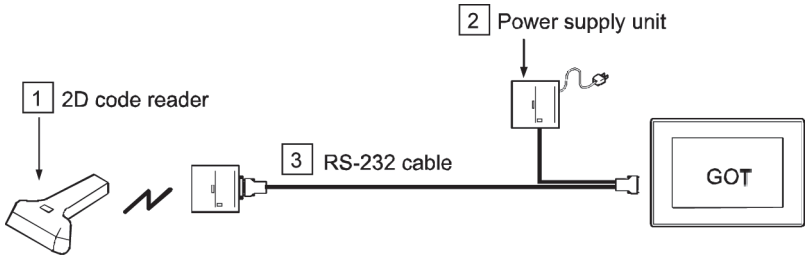
3) RS-232 cable connection diagram for a 2D code reader manufactured by DENSO WAVE INCORPORATED
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the 2D code reader manufacturer.

2D code reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	CD
/TXD	2		2	RD(RXD)
/RXD	3		3	SD(TXD)
—	—		4	DTR(ER)
GND	5		5	SG
—	—		6	DSR(DR)
CTS	7		7	RS(RTS)
RTS	8		8	CS(CTS)
—	—		9	NC

4) RS-232 cable connection diagram for a 2D code reader manufactured by MARS TOHKEN SOLUTION CO.LTD.
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the 2D code reader manufacturer.

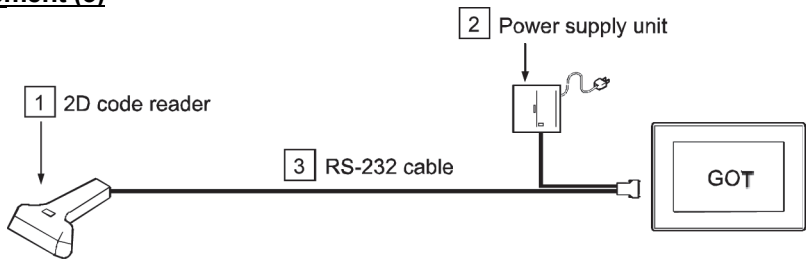
2D code reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	CD *1
RXD /RD-	2		2	RD(RXD)
TXD /TD+	3		3	SD(TXD)
—	—		4	DTR(ER)
GND	5		5	SG
—	—		6	DSR(DR)
—	—		7	RS(RTS)
RTS	11		8	CS(CTS)
CTS	12		9	—

4.2.2 System equipment (2)



Manufacturer	1 2D code reader	2 Power supply unit	3 RS-232 cable
DENSO WAVE INCORPORATED	GT10Q-SB	Included with a 2D code reader (A Bluetooth adapter (BA-10RKU) must be purchased separately.)	CBBA-RS2000/9

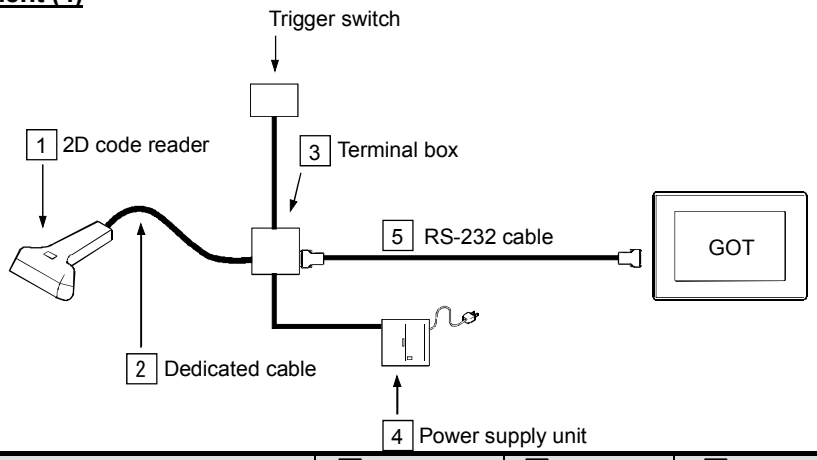
4.2.3 System equipment (3)



Manufacturer	1 2D code reader	2 Power supply unit	3 RS-232 cable
IDEC AUTO-ID SOLUTIONS Corporation	GD4430-□□	UL310-0515, or 5V power supply from the GOT standard interface *2	CAB-350 *3
	GD4430-□□-HD		
	GBT4430-□□		
	MG1100i-2D	11-0387 or HK-CP13-A05	8-0736-80 *3
	M3200i Series	PSAA18U-120	8-0730-54 *3
DENSO WAVE INCORPORATED	AT10Q-SM	Included with a 2D code reader	Included with a 2D code reader
Cognex K.K.	DataMan 750	DMA-24KIT-00, DM100-PWR-000	DM700-RS232-00
	DataMan 750S		
	DataMan 8100 *1	DM100-PWR-00	DM8000-RS232-00
	DataMan 8500 *1		
Honeywell International Inc.	1900GSR-2	Included with a 2D code reader	Included with a 2D code reader

*1: DataMan 8100/8500 requires the communication module DMCM-SERIALM-00.
*2: It is necessary to supply 5VDC to the 2D code reader separately. For details, please refer to the manual of the 2D code reader to be used.
*3: To connect the 2D code reader to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)
<Connection example>
[2D code reader (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]

4.2.4 System equipment (4)

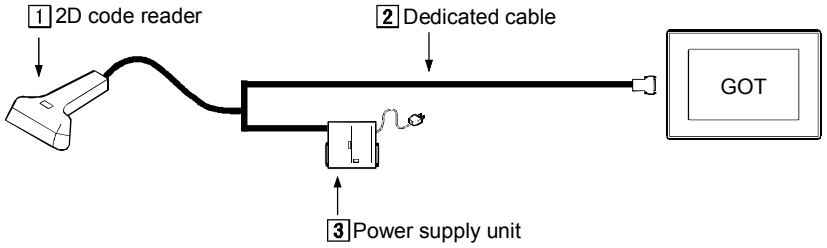


Manufacturer	1 Barcode reader	2 Dedicated cable	3 Terminal box	4 Power supply unit	5 RS-232 cable
IDEC AUTO-ID SOLUTIONS Corporation	MATRIX210-21□-□□□	Included with a 2D code reader	CBX100	PS5R-B24	Produced by the user Refer to 1) below.
	MATRIX300-□□□-□□□	CAB-DS0□-S			
	MATRIX410-□□□-0□0	CAB-MS01			

1) RS-232 cable connection diagram for a 2D code reader manufactured by IDEC AUTO-ID SOLUTIONS Corporation.
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the barcode reader manufacturer.

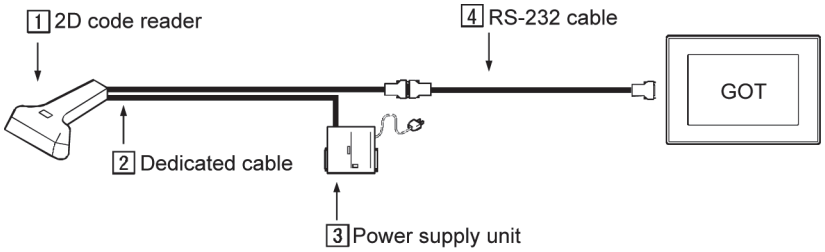
Barcode reader		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
SGND	—		1	CD
TX	—		2	RD(RXD)
RTS	—		3	SD(TXD)
RX	—		4	ER(DTR)
CTS	—		5	SG
—	—		6	DR(DSR)
—	—		7	RS(RTS)
—	—		8	CTS
—	—		9	NC

4.2.5 System equipment (5)



Manufacturer	1 2D code reader	2 Dedicated cable	3 Power supply unit
KEYENCE CORPORATION	TL-30	Included with a 2D code reader	TL-U1

4.2.6 System equipment (6)



Manufacturer	1 2D code reader	2 Dedicated cable	3 Power supply unit	4 RS-232 cable
Cognex K.K.	DataMan 200	CCB-84901-1003-△△	CPS-AC-POE1A-△△	CCB-M8X4-△△

4.3 Compatible 2D code type

Only “QR code” is supported by the GOT.

4.4 How to read data by a 2D code reader

Please refer to the followings for the data transfer format (header/terminator settings and others) that can be used in the GOT or the setting method to read data by a 2D code reader.

(a) Data transfer format (header/terminator settings and others) that can be used in the GOT.

(b) Setting to connect a 2D code reader to the GOT. ([Peripheral Setting] on GT Designer3(GOT2000))

(c) Setting to write the data, read by a 2D code reader, to the PLC CPU. ([Detail Setting] in the [Bar Code] dialog box on GT Designer3(GOT2000))
Refer to the following.

➟ GT Designer3 (GOT2000) Screen Design Manual (SH-081220ENG)

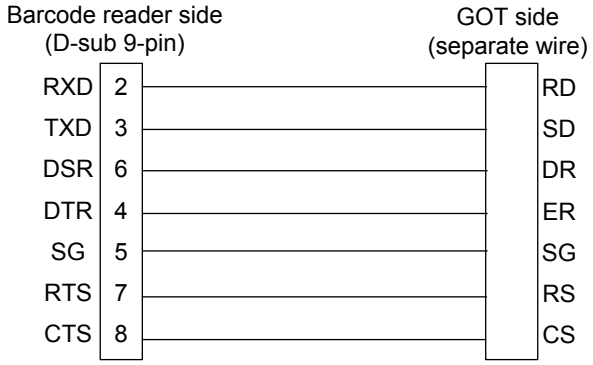
(d) Setting the procedure from connecting a 2D code reader to the GOT until reading 2D code data.
Refer to the following.

➟ GOT2000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)

4.5 When using the GT21 model

To connect the barcode reader with the built-in RS-232 port (on the back side) of GT2103-PMBDS or GT2103-PMBDS2, use the cable GT10-C02H-6PT9P.
To use GT2104-R, refer to the following and fabricate a cable for connecting the GOT.

■User cable



5. Hubs for Ethernet Connection and Gateway Function

(Compatible Product)

Manufacturer	Model		
Allied Telesis K.K.	CentreCOM FS708XL CentreCOM FS705TX	CentreCOM MR815TL CentreCOM FS705TX V2	CentreCOM RH505EL
I-O DATA DEVICE, INC.	ETX-ESH5	ETX-SH5	
KEYENCE CORPORATION	NE-V08		
PHOENIX CONTACT	FL SWITCH SF 8TX	FL SWITCH 5TX (Hardware version 13 or later)	
Mitsubishi Electric Corporation	NZ2EHG-T8		
Mitsubishi Cable Industries,Ltd.	ET10618	ST12904-AC	

(Discontinued Product *1)

Manufacturer	Model	
Allied Telesis K.K.	CentreCOM MR820TR	CentreCOM 3012TR V2
Mitsubishi Cable Industries,Ltd.	ST12608	

*1: Discontinued Products are not checked with GOT2000 Series.

(Incompatible Product *2)

Manufacturer	Model
BUFFALO INC.	LSW-TX-5EP

*2: Incompatible Products are not checked with GOT2000 Series.

6. Video Camera

Precautions
Some video cameras may require a separate power supply unit.
Regarding a required power supply unit for a video camera, confirm with the manufacturer.

(Compatible Product)

Manufacturer	Model		
Sony Corporation	XC-ST70 *1	XC-ST50 *1	XC-ST51 *1
	XC-ES50 *1	XC-ES50L *1	XC-ES51 *1
	XC-ES30 *1	XC-EI50 *1	XC-EI30 *1
	XC-ST70CE *2	XC-ST30CE *2	XC-ES30CE *2
TOSHIBA TELI CORPORATION	CS8630i *1	CS8550i-51 *1*4	CS8311Bi *2
	CS8310Bi *1		
Mitsubishi Electric Corporation	CIT-9510M *3*5	CIT-8800M *3*5	CIT-8510M *3*5
	CIT-8000 *3*5		
	C-4010 *3*5		
	C-2915 *3*5	C-2670 *3*5	C-2600 *3*5
SENSOR TECHNOLOGY CO.,LTD (SENTECH)	STC-620BJ2 *3		

*1: EIA format (Monochrome) Set NTSC for the video input signal of the communication settings.
*2: CCIR format (Monochrome) Set PAL for the video input signal of the communication settings.
*3: NTSC format (Color)
*4: Set the 1/60s interlace mode for the video output mode (VIDEO) of the dipswitch on the camera rear panel.
*5: Some video cameras may require a separate power supply unit or the equipment for converting the specifications to Mitsubishi specifications. For details, check the manual of the video camera to be used.

7. Display

(Compatible Product)

Manufacturer	Model		
Mitsubishi Electric Corporation	RDT1713LM	RDT198LM	RDT223WLM
	RDT234WLM	RDT234WX	RDT234WX-3D
	RDT235WLM	RDT235WX	RDT241WEX
	RDT242WH		

8. Speaker

For a sound output unit of the GOT, use a speaker with amplifier.
Use a speaker compatible with the following specifications.

Item	Specification
Sound output terminal	For connecting external L/R speakers, 1 channel for each speaker (2Vp-p, 0.4mW (for rated load 10kΩ)
Applicable jack	Φ3.5 stereo mini jack, straight type
Playable file	Windows WAV format 8.000kHz, 16 bits, mono (8 seconds/sound file)

9. RFID Controller

9.1 Compatible Products

9.1.1 RS-232 connection

◎: Recommended product,○: Operation validated, ×: Operation not checked

Manufacturer	Model	Operation validation	
		GOT2000	GT SoftGOT2000
LS Industrial Systems Co., Ltd.	LSRF-C	◎	◎
OMRON Corporation	V600/V620	◎	◎
MARS TOHKEN SOLUTION CO.LTD..	ICU-60S	◎	◎
	ICU-215	◎	×
PONGEE INDUSTRIES CO., LTD	PUA-310	◎	◎

9.1.2 RS-422/485 connection

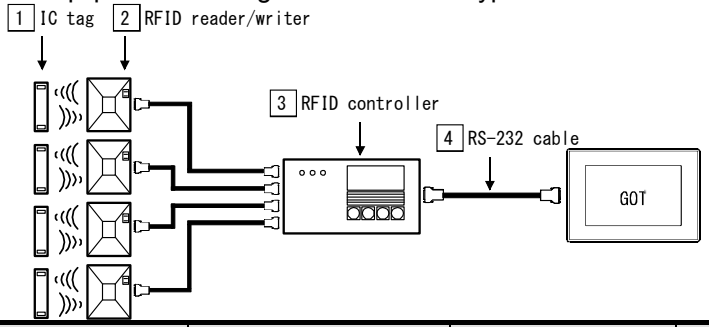
◎: Recommended product,○: Operation validated, ×: Operation not checked

Manufacturer	Model	Operation validation	
		GOT2000	GT SoftGOT2000
OMRON Corporation	V600	◎	×
	V680	◎	×

9.2 System equipment of RFID controllers

9.2.1 When using the RS-232 connection

The following shows the equipment to configure with different types of RFID controllers.



Manufacturer	1 IC tag	2 RFID reader/writer	3 RFID controller	4 RS-232 cable
LS Industrial Systems Co., Ltd.	LSRT125	LSRF-L	LSRF-C	Produced by the user Refer to (1) below *1
OMRON Corporation	V600-D□	V600-H□	V600-CA5D□	Produced by the user Refer to (2) below *1
	V620-D8KR01	V620-H□	V620-CA1A	Produced by the user Refer to (3) below *1
MARS TOHKEN SOLUTION CO.LTD..	Mifare(ISO14443 TypeA) card	ICU-60S (built-in a controller)		Produced by the user Refer to (4) below *1
		ICU-215 (built-in a controller)		Produced by the user Refer to (5) below *1
PONGEE INDUSTRIES CO., LTD	PUA-310-compatible tag	PUA-310 (built-in a controller)		Produced by the user Refer to (6) below *1

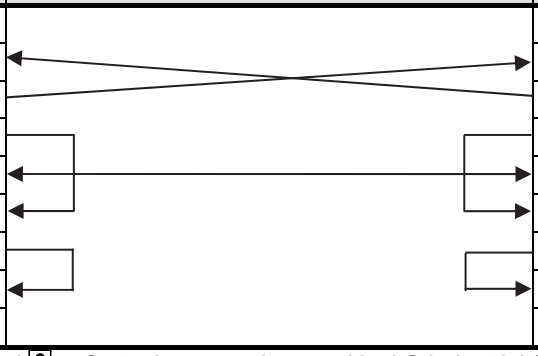
*1: To connect the RFID controller to GT SoftGOT2000, connect the following USB/RS-232 conversion cables to a USB port on the personal computer.
For the USB/RS-232 conversion cables, refer to Technical Bulletin FA-D-0036.
- DIFC-U2 (Diatrend Corporation)
- DAC01R2VD (Diatrend Corporation)

<Connection example>
[RFID controller (RS-232)] + [3 RS-232 cable] + [DAC01R2VD] + [DIFC-U2] + [Personal computer (USB)]

(1) RS-232 cable connection diagram for an RFID controller manufactured by LS Industrial Systems Co., Ltd.

The following shows connection cables that must be produced by the user.

Maximum cable length: confirm with the RFID controller manufacturer.

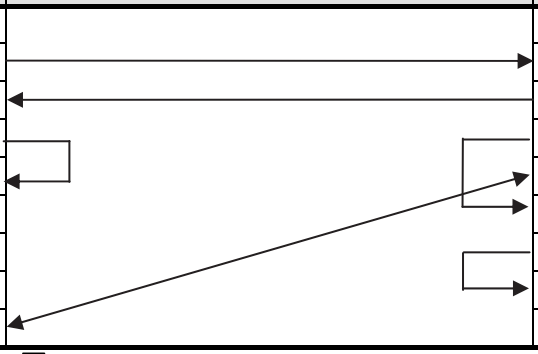
RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
NC	1		1	CD
RD(RXD)	2		2	RD(RXD)
SD(TXD)	3		3	SD(TXD)
NC	4		4	DTR(ER)
SG	5		5	SG
NC	6		6	DSR(DR)
NC	7		7	RS(RTS)
NC	8		8	CS(CTS)
NC	9		9	NC

* For the cables between 2 and 3, refer to the manual created by LS Industrial Systems Co., Ltd.

(2) RS-232 cable connection diagram for a V600 RFID controller manufactured by OMRON Corporation

The following shows connection cables that must be produced by the user.

Maximum cable length: confirm with the RFID controller manufacturer.

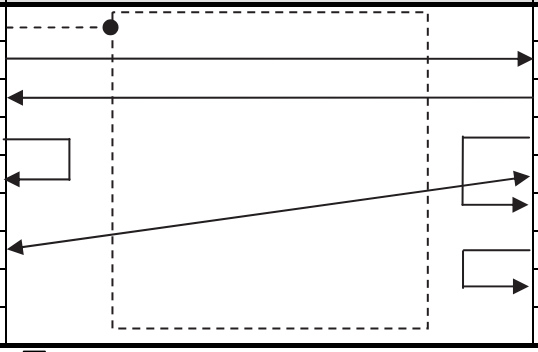
RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	1		1	CD
SD	2		2	RD(RXD)
RD	3		3	SD(TXD)
RS	4		4	DTR(ER)
CS	5		5	SG
—	6		6	DSR(DR)
—	7		7	RS(RTS)
—	8		8	CS(CTS)
SG	9		9	—

*For the cables between 2 and 3, refer to the manual created by OMRON Corporation

(3) RS-232 cable connection diagram for a V620 RFID controller manufactured by OMRON Corporation

The following shows connection cables that must be produced by the user.

Maximum cable length: confirm with the RFID controller manufacturer.

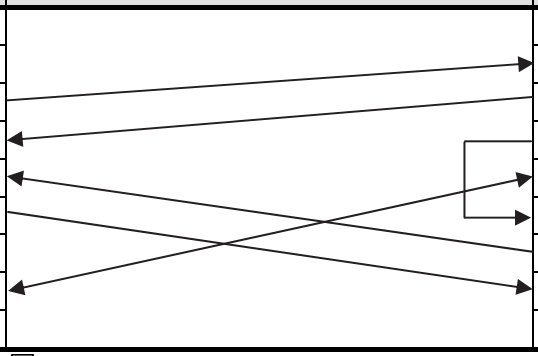
RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
FG	1		1	CD
SD	2		2	RD(RXD)
RD	3		3	SD(TXD)
RS	4		4	DTR(ER)
CS	5		5	SG
—	6		6	DSR(DR)
SG	7		7	RS(RTS)
—	8		8	CS(CTS)
ER	20		9	NC

*For the cables between 2 and 3, refer to the manual created by OMRON Corporation

(4) RS-232 cable connection diagram for an ICU-60S RFID controller manufactured by MARS TOHKEN SOLUTION CO.LTD.

The following shows connection cables that must be produced by the user.

Maximum cable length: confirm with the RFID controller manufacturer.

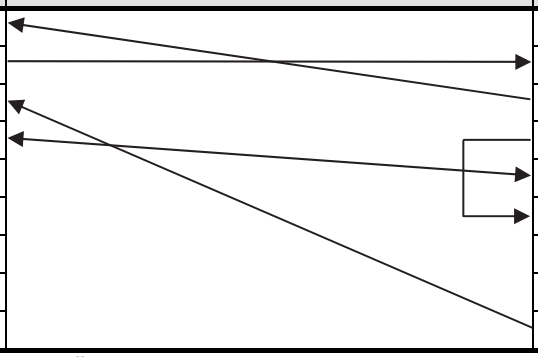
RFID controller (ICU-60S)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
+24V	1		1	CD
GND	2		2	RD(RXD)
TXD	3		3	SD(TXD)
RXD	4		4	DTR(ER)
CTS	5		5	SG
RTS	6		6	DSR(DR)
/RST	7		7	RS(RTS)
GND	8		8	CS(CTS)
—	9		9	NC

*For the cables between 2 and 3, refer to the manual created by MARS TOHKEN SOLUTION CO.LTD..

(5) RS-232 cable connection diagram for an ICU-215 RFID controller manufactured by MARS TOHKEN SOLUTION CO.LTD.

The following shows connection cables that must be produced by the user.

Maximum cable length: confirm with the RFID controller manufacturer.

RFID controller (ICU-215)		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
/RXD	1		1	CD
/TXD	2		2	RD(RXD)
+5V	3		3	SD(TXD)
GND	4		4	DTR(ER)
GND	5		5	SG
—	—		6	DSR(DR)
—	—		7	RS(RTS)
—	—		8	CS(CTS)
—	—		9	5V *1

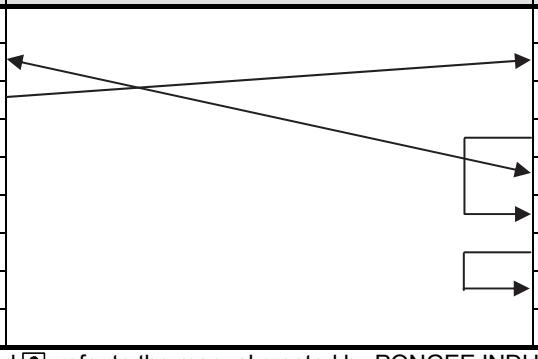
*1: Supply 5VDC to the RFID controller.

*For the cables between 2 and 3, refer to the manual created by MARS TOHKEN SOLUTION CO.LTD..

(6) RS-232 cable connection diagram for an ICU-215 RFID controller manufactured by PONGEE INDUSTRIES CO., LTD.

The following shows connection cables that must be produced by the user.

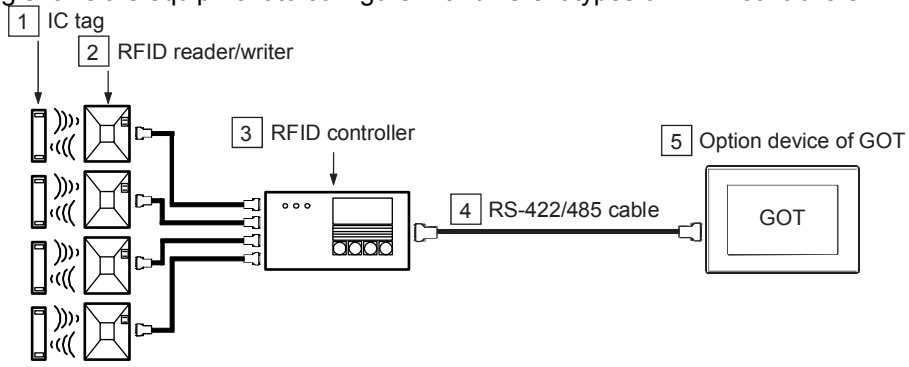
Maximum cable length: confirm with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Color		Pin No.	Signal name
+12VDC	Red		1	CD
Ground	Black		2	RD(RXD)
TX+	White		3	SD(TXD)
Shield/Ground	Yellow		4	DTR(ER)
—	—		5	SG
—	—		6	DSR(DR)
—	—		7	RS(RTS)
—	—		8	CS(CTS)
—	—		9	—

*For the cables between 2 and 3, refer to the manual created by PONGEE INDUSTRIES CO., LTD

9.2.2 When using the RS-422/485 connection

The following shows the equipment to configure with different types of RFID controllers.



Manufacturer	1 IC tag	2 RFID reader/writer	3 RFID controller	4 RS-232 cable	5 Option device of GOT
OMRON Corporation	V600-D□	V600-H□	V600-CA5D□	Produced by the user Refer to (1) below	- (Built into GOT)
					GT15-RS4-9S
				Produced by the user Refer to (2) below	GT15-RS4-TE
	V680-D□	V680-H□	V680-CA5D□	Produced by the user Refer to (1) below	- (Built into GOT)
					GT15-RS4-9S
				Produced by the user Refer to (2) below	GT15-RS4-TE

(1) RS-422/485 cable (D-sub, 9 pins) connection diagram for an RFID controller (V600/V680) manufactured by OMRON Corporation

(a) For the RS-422 connection

The following shows connection cables that must be produced by the user.

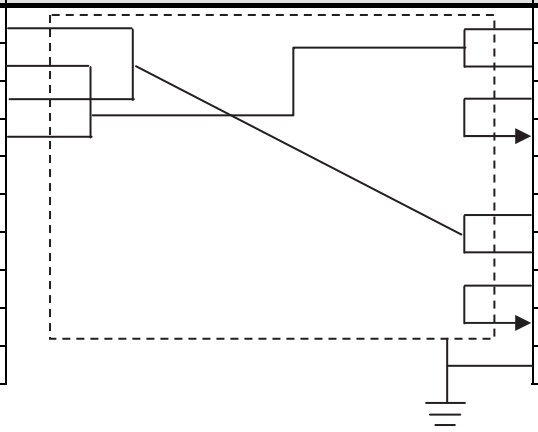
Maximum cable length: confirm with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA
RDB(+)	2		2	RDA
SDA(-)	3		3	RSA
SDB(+)	4		4	CSA
SG	5		5	SG
—	—		6	SDB
—	—		7	RDB
—	—		8	RSB
—	—		9	CSB
—	—		—	FG

*For the cables between 2 and 3, refer to the manual created by OMRON Corporation

(a) For the RS-485 connection

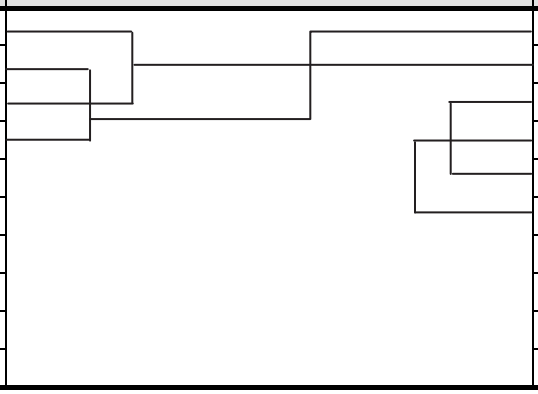
The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA
RDB(+)	2		2	RDA
SDA(-)	3		3	RSA
SDB(+)	4		4	CSA
SG	5		5	SG
—	—		6	SDB
—	—		7	RDB
—	—		8	RSB
—	—		9	CSB
—	—		—	FG

*For the cables between 2 and 3, refer to the manual created by OMRON Corporation

(2) RS-422/485 cable (terminal block) connection diagram for an RFID controller (V600/V680) manufactured by OMRON Corporation

The following shows connection cables that must be produced by the user.
Maximum cable length: confirm with the RFID controller manufacturer.

RFID controller		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
RDA(-)	1		1	SDA1
RDB(+)	2		2	SDB1
SDA(-)	3		3	RDA1
SDB(+)	4		4	RDB1
SG	5		5	SDA2
—	—		6	SDB2
—	—		7	RDA2
—	—		8	RDB2
—	—		9	SG
—	—		10	FG

*For the cables between 2 and 3, refer to the manual created by OMRON Corporation

9.3 How to read data by an RFID controller

Please refer to the followings for the data transfer format (header/terminator settings and others) that can be used in the GOT or the setting method to read data by an RFID controller.

(a) Data transfer format (header/terminator settings and others) that can be used in the GOT.

(b) Setting to connect an RFID controller to the GOT. ([Peripheral Setting] on GT Designer3(GOT2000))

(c) Setting to write the data, read by an RFID controller, to the PLC CPU. ([Detail Setting] in the [Bar Code] dialog box on GT Designer3(GOT2000))
Refer to the following.

➟ GT Designer3 (GOT2000) Screen Design Manual (SH-081220ENG)

(d) Setting procedure from connecting an RFID controller to the GOT until reading IC tag data.
Refer to the following.

➟ GOT2000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)

(e) The send data and receive data for an RFID controller manufactured by MARS TOHKEN SOLUTION CO.LTD.

1) ICU-60S
Send data: Set the data except STX and ETX to LF.
Receive data: The data except STX and ETX to LF are stored.

2) ICU-215
Send data: Set the data except STX and BCC to ETX.
Receive data: The data except STX and BCC to ETX are stored.

9.4 The following RFID controllers are available for the external authentication.

Manufacturer	Model
LS Industrial Systems Co., Ltd.	LSRF-C
OMRON Corporation	V600/V620
PONGEE INDUSTRIES CO., LTD	PUA-310

10. USB Mouse Function

Item	Specification
USB mouse	Two-button USB mouse which is compliant with USB2.0 *1*2*3

*1: A wheeled mouse and a mouse with more than three buttons can be used as a two-button mouse.
*2: A particular USB mouse and others may not be available depending on the USB mouse type.
Particular function examples:
A composite device (a device with a USB hub function, a card reader, a numeric keypad, or others), a 4-button mouse, and a mouse whose functions are added by dedicated driver software
*3: The USB2.0 compliance includes forward compatibility with USB3.0 and others, as well as backward compatibility with USB1.1 and others.

11. USB Keyboard Function

11.1 USB Keyboard

Item	Specification
USB keyboard	Japanese 106 keyboard, English 101 keyboard, and forward-compatible keyboards (Japanese 109 keyboard and others), which are compliant with USB2.0 and OADG *1*2*3

*1: Only keys compatible with Japanese 106 keyboards and English 101 keyboards are available.
(Keys other than on Japanese 106 keyboards or on an English 101 keyboards are invalid.)
*2: A keyboard with a particular function and others may not be available depending on the keyboard type.
*3: The USB2.0 compliance includes forward compatibility with USB3.0 and others, as well as backward compatibility with USB1.1 and others.

11.2 USB Barcode Reader

When connected by USB, the barcode reader can send key codes to input objects (such as text input or numerical input) by using the USB keyboard function.
When connected by USB, the barcode reader cannot be used for the barcode function. To use the barcode function, use the device that can connect to the RS-232 or RS-422/485 interface.

○: Operation validated, ×: Operation not checked

Item	Manufacturer	Model	Operation validation
			GT27, GT25
USB Barcode Reader	NICHIEI INTEC CO., LTD.	FFTA21BU	○
		FFTA10AUSB	○
	KEYENCE CORPORATION	HR-100	○
	MARS TOHKEN SOLUTION CO.LTD.	THLS-7800U	○
	DENSO WAVE INCORPORATED	HC56TU	○
	OPTOELECTRONICS CO.,LTD.	OPL-6845V	○

11.3 USB RFID Controller

When connected by USB, the RFID controller can send key codes to input objects (such as text input or numerical input) by using the USB keyboard function.
When connected by USB, the RFID controller cannot be used for the RFID function. To use the RFID function, use the device that can connect to the RS-232 or RS-422/485 interface.

○: Operation validated, ×: Operation not checked

Item	Manufacturer	Model	Operation validation
			GT27, GT25
USB RFID Controller	Topre Corporation	TRF-100U+	○

11.4 Other device

When connected by USB, the following device can send key codes to input objects (such as text input or numerical input) by using the USB keyboard function.

○: Operation validated, ×: Operation not checked

Item	Manufacturer	Model	Option device	Connection cable	Operation validation
					GT27, GT25
Digital caliper	Mitutoyo Corporation	CD-15AX	IT-012U	959149 (1m)	○
			USB-ITN-C	-	×

12. USB Hub

To use a USB hub, connect the USB hub to the GOT, and then power on the GOT.

Item	Specification
USB hub	USB hub compliant with USB2.0 *1*2

*1: A particular hub and others may not be available depending on the USB hub type.
Particular function examples:
A hub with 5 or more ports, a hub with multiple hubs, and a composite device with functions other than a hub function
*2: The USB2.0 compliance includes forward compatibility with USB3.0 and others, as well as backward compatibility with USB1.1 and others.

13. Wireless LAN Access Point

Precautions

The wireless LAN communication unit (GT25-WLAN) with hardware version A can be used only in Japan.
The wireless LAN communication unit with hardware version B or later can be used in Japan, the United States, the EU member states, Switzerland, Norway, Iceland, and Liechtenstein.

Item	Specification
Wireless LAN access point	Wireless LAN access point compatible with IEEE802.11 b/g/n *1*2*3

*1. The following shows the supported security authentication method.
64bit/128bit WEP, WPA-PSK (TKIP, AES), WPA2-PSK (TKIP, AES)
*2: IEEE802.11n only supports 2.4-GHz-bandwidth.
To use IEEE802.11n communication, perform the security authentication by the WPA-PSK (AES) or WPA2-PSK (AES) method.
When you select the WEP or TKIP method, IEEE802.11n communication cannot be used.
*3: According to the GT25-WLAN specifications, the maximum data rate is 72.2 Mbps.

14. Printer

PictBridge compatible printers and serial printers are available for the GOT2000 series.
The following shows the correspondence of the GOTs, printers and software.

GOT	Available printer	Available software	Reference
GT27, GT25	PictBridge compatible printer	GT Works3 Version1.105K or later	14.1
GT27, GT25, GT21	Serial printer	GT Works3 Version1.105K or later	14.2

14.1 PictBridge compatible printer

To connect a PictBridge compatible printer to the GOT, the GT15-PRN printer unit is required.
The GT15-PRN printer unit only supports the connection to PictBridge compatible printers. Serial printers are not supported.
To use a PictBridge compatible printer, write the package data to the GOT using the screen design software of **GT Works3 Version1.105K or later**.

Precautions

PictBridge compatible printers are available by mounting the GT15-PRN printer unit on the GOT. However, the paper size, printable area, error handling, and others differ according to the printer models. For the details, follow the printer manual.

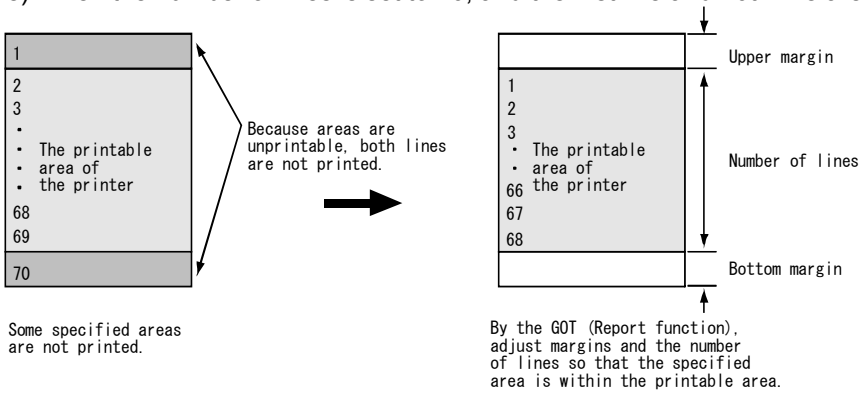
(1) Paper size

Regardless of the paper size set on the GOT, an image on the GOT may be printed at the size set on the printer.
When the paper size of the hard copy is specified other than the A4 size, an error may occur and the hard copy cannot be printed. Set the paper size to A4.

(2) Printable area

When using the report function of the GOT, the printable area varies according to the printer.
By the printer specifications, the trimming process is performed and some specified lines may not be printed. (The trimming process adjusts image dimensions to a full printable area specified for the paper size, and does not print the unprintable areas.)
When some areas are not printed, adjust margins and lines by using the report function of the GOT in accordance with the printer specifications. (Refer to the figure below.)

Example) When the number of lines is set to 70, and the first line and 70th line are unprintable



When some of lines are not printed for the report function of the GOT, configure the printer setting with no trimming. Doing so may print the lines correctly.

(3) Paper jam

For the paper jam, remove the paper, and then execute the printing process again by using the GOT.
When the printing process does not start after the above actions, execute any of the following methods.

(a) Press the cancel button on the printer to stop the printing process, and then execute the printing process again by using the GOT.
(b) Disconnect and connect the cable of the printer, and then turn on the printer again. (The printing process starts again automatically.)
(d) Press the OK button on the printer to stop the printing process. Then execute the printing process again by using the GOT.
(e) Press the cancel button on the printer. (The printing process starts again automatically.)

(4) Others

For some printers, the print enable/disable status notification signal (GS258.b3) may turn on before the preparations for printing are not completed.
Check the preparations for printing and then execute the printing process.

14.2 Serial printer

You can use a serial printer by connecting the printer to the built-in RS-232 interface, or by mounting the GT15-RS2-9P on the GOT.
To use a serial printer, write the package data to the GOT using the screen design software of **GT Works3 Version1.105K or later**.
The GOT supports printer control code ESC/P24-J84.

(Compatible Product)

Manufacturer	Model	Available hard copy size	Reference
NADA ELECTRONICS, LTD.	TP-642EG *1	QVGA, VGA *2	Refer to (1) below.
	TP-1728G *1	QVGA, VGA, SVGA, XGA	
SEIKO EPSON CORPORATION	VP-700U	QVGA, VGA, SVGA	Refer to (2) below.

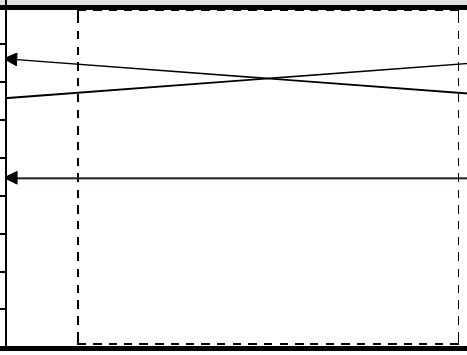
*1: TP-642EG and TP-1728G only support the hard copy function.

*2: Since the printing width of the data is larger than the paper width, set the printer to “Do not print unprintable area.” or “Reduce and print data.”

(1) Cable connection diagram and precautions for a printer manufactured by NADA ELECTRONICS, LTD.

(a) Connection cable diagram

The following shows connection cables that must be produced by the user.
(Maximum cable length: confirm with a printer manufacturer.)

Printer		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	CD
RXD	2		2	RD(RXD)
TXD	3		3	SD(TXD)
—	—		4	DTR(ER)
GND	5		5	SG
—	—		6	DSR(DR)
RTS	7		7	RS(RTS)
CTS	8		8	CS(CTS)
—	—		9	NC

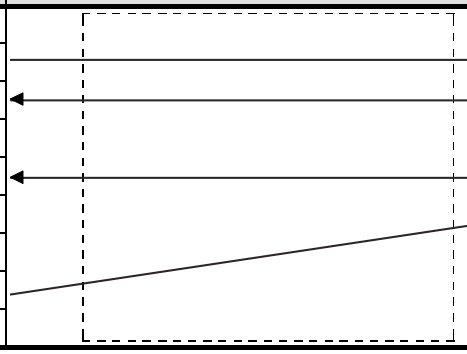
(b) Precautions

- Monochrome printing
- If printing is interrupted due to a turned-off printer, cable disconnection, and others, turn off and then on the printer power, and perform the printing again.
- For printing with the report function, one-byte characters are printed as two-byte characters.
- For printing with the report function, the left margin setting of the print format is disabled.
- Since the printing paper is roll paper, the page break function is disabled.

(2) Cable connection diagram and precautions for a printer manufactured by SEIKO EPSON CORPORATION

(a) Connection cable diagram

The following shows connection cables that must be produced by the user.
(Maximum cable length: confirm with a printer manufacturer.)

Printer		Cable connection and signal direction	GOT	
Signal name	Pin No.		Pin No.	Signal name
—	—		1	CD
TXD	2		2	RD(RXD)
RXD	3		3	SD(TXD)
—	—		4	DTR(ER)
SIGNAL GND	7		5	SG
—	—		6	DSR(DR)
—	—		7	RS(RTS)
DTR	20		8	CS(CTS)
—	—		9	NC

(b) Precautions

- Monochrome printing
- If printing is interrupted due to a turned-off printer, cable disconnection, and others, turn off and then on the printer power, and perform the printing again.
- For printing with the report function, the available left margin setting of the print format ranges from 0 to 67.

Version	Print date	Revision
*	September 2013	- First edition (Japanese only) (Print date indicates the date that the Japanese version was issued.)
A	January 2014	- Models have been added to "3. Barcode Reader". - "13. Wireless LAN Access Point" has been added. - "14. Printer" has been added.
B	December 2014	- Models have been added to "4. 2D Code Reader ".
C	February 2015	- Models have been added to "3. Barcode Reader". - Models have been added to "9. RFID Controller ". - Models have been added to "11. USB Keyboard Function ".

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